Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended:

1. (Currently Amended) A method for detecting a rotational state of a microfeature workpiece having an electrically conductive material, comprising:

supporting the microfeature workpiece;

rotating the microfeature workpiece;

establishing a magnetic field at least proximate to the microfeature workpiece so that an eddy current is produced in a portion of the microfeature workpiece when the workpiece is rotated; and

detecting a change of a rotation speed of the microfeature workpiece by detecting a characteristic corresponding to a state of the magnetic field, the characteristic depending at least in part on relative motion, or lack of relative motion, between the conductive material of the microfeature workpiece and the magnetic field.

2. (Original) The method of claim 1 wherein establishing the magnetic field includes applying an electrical potential to an electromagnet circuit.

3. (Original) The method of claim 1 wherein establishing the magnetic field includes positioning a permanent magnet at least proximate to the microfeature workpiece.

4. (Currently Amended) The method of claim 1 wherein establishing the magnetic field includes producing an ~~electro~~magnetic field by applying a constant electrical potential to an electromagnet circuit, and wherein detecting a characteristic corresponding to a state of the magnetic field includes detecting a change in a voltage in the electromagnet circuit.

5. (Currently Amended) The method of claim 1 wherein establishing the magnetic field includes producing an ~~electro~~magnetic field by applying a constant electrical potential to an electromagnet circuit, and wherein detecting a characteristic corresponding to a state of the magnetic field includes detecting a change in a current flowing through the electromagnet circuit.

6. (Original) The method of claim 1 wherein establishing the magnetic field includes supporting at least a portion of a magnetic field source with a magnet support, the portion of the magnetic field source being movable relative to the microfeature workpiece, and wherein detecting the characteristic corresponding to the state of the magnetic field includes detecting a movement of the portion of the magnetic field source as the microfeature workpiece rotates.

7. (Original) The method of claim 1 wherein establishing the magnetic field includes supporting at least a portion of a magnetic field source with a magnet support, the portion of the magnetic field source being movable relative to the microfeature workpiece, and wherein detecting the characteristic corresponding to the state of the magnetic field includes detecting a movement of the portion of the magnetic field source by monitoring characteristics of a radiation beam directed to detect movement of magnet as the microfeature workpiece rotates.

8. (Original) The method of claim 1 wherein establishing the magnetic field includes supporting at least a portion of a magnetic field source with a magnet support, the portion of the magnetic field source being movable relative to the microfeature workpiece, and wherein detecting the characteristic corresponding to the state of the magnetic field includes detecting a movement of the portion of the magnetic field source by monitoring characteristics of a light beam directed to detect movement of magnet as the microfeature workpiece rotates.

9. (Original) The method of claim 1, further comprising ceasing to rotate the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value.

10. (Original) The method of claim 1, further comprising:

ceasing to rotate the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value; and

removing the microfeature workpiece from the support when the microfeature workpiece ceases to rotate.

11. (Original) The method of claim 1, further comprising adjusting a rotation speed of the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value.

12. (Original) The method of claim 1, further comprising removing material from the microfeature workpiece as it rotates.

13. (Original) The method of claim 1 wherein detecting the characteristic corresponding to the state of the magnetic field includes detecting a variation in the magnetic field using a magnetic sensor.

14. (Original) The method of claim 1 wherein the microfeature workpiece includes a first face, a second face facing opposite from the first face, and an edge surface between the first and second faces, and wherein the method further comprises supporting the edge surface while rotating the microfeature workpiece.

15. (Currently Amended) A method for detecting a rotational state of a microfeature workpiece, comprising:

supporting the microfeature workpiece with a workpiece support, the microfeature workpiece including an electrically conductive material;

rotating the microfeature workpiece while the microfeature workpiece is carried by the workpiece support;

establishing ~~an~~ ~~electro~~magnetic field at least proximate to the microfeature workpiece so that an eddy current is produced in a portion of the microfeature workpiece when the workpiece is rotated; and

detecting a change in a rotation speed of the microfeature workpiece by detecting a change in the ~~electro~~magnetic field caused by relative motion, or lack of relative motion, between the conductive material of the microfeature workpiece and the ~~electro~~magnetic field.

16. (Currently Amended) The method of claim 15 wherein establishing the magnetic field includes producing ~~an~~ ~~electro~~magnetic field by applying a constant electrical potential to an electromagnet circuit, and wherein detecting a characteristic corresponding to a state of the magnetic field includes detecting a change in a voltage in the electromagnet circuit.

17. (Currently Amended) The method of claim 15 wherein establishing the magnetic field includes producing ~~an~~ ~~electro~~magnetic field by applying a constant electrical potential to an electromagnet circuit, and wherein detecting a characteristic corresponding to a state of the magnetic field includes detecting a change in a current flowing through the electromagnet circuit.

18. (Original) The method of claim 15, further comprising ceasing to rotate the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value.

19. (Original) The method of claim 15, further comprising:

ceasing to rotate the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value; and

removing the microfeature workpiece from the support when the microfeature workpiece ceases to rotate.

20. (Original) The method of claim 15, further comprising adjusting a rotation speed of the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value.

21. (Currently Amended) A method for detecting a rotational state of a microfeature workpiece having an electrically conductive material, comprising:

supporting the microfeature workpiece with a workpiece support;

rotating the workpiece support to rotate the microfeature workpiece;

removing material from at least one face of the microfeature workpiece with at least one rotating brush;

establishing a magnetic field at least proximate to the microfeature workpiece by applying an electrical potential to an electromagnet circuit so that the magnetic field produces an eddy current in a portion of the microfeature workpiece when the workpiece is rotated; and

detecting a change in a rotation speed of the microfeature workpiece by detecting a change in a characteristic of the electromagnet circuit caused by relative motion, or lack of relative motion, between the conductive material of the microfeature workpiece and the magnetic field.

22. (Original) The method of claim 21, further comprising adjusting a rotation speed of the microfeature workpiece by reducing pressure applied by the at least one rotating brush normal to a face of the microfeature workpiece if a change in the rotation speed of the microfeature workpiece exceeds a target value.

23. (Original) The method of claim 21 wherein the magnetic field is created by applying a constant voltage to the electromagnetic circuit.

24. (Original) The method of claim 21 wherein the magnetic field is created by applying a constant current to the electromagnetic circuit.

25. (Currently Amended) An apparatus for detecting a rotational state of a microfeature workpiece having an electrically conductive material, the apparatus comprising:

a support having an engaging surface configured to contact and rotate a microfeature workpiece;

a magnetic field source positioned at least proximate to the support, the magnetic field source being configured to produce a magnetic field at least proximate to the support so that an eddy current is produced in a portion of the microfeature workpiece when the workpiece is rotated; and

a detection device positioned at least proximate to the support, the detection device being configured to detect a characteristic corresponding to a state of the magnetic field, the characteristic depending at least in part on relative motion, or lack of relative motion, between the conductive material of the microfeature workpiece and the magnetic field.

26. (Original) The apparatus of claim 25 wherein the magnetic field source includes an electromagnet.

27. (Original) The apparatus of claim 25, further comprising the microfeature workpiece.

28. (Original) The apparatus of claim 25 wherein the magnetic field source includes a permanent magnet.

29. (Original) The apparatus of claim 25 wherein the magnetic field source includes an electromagnet, coupleable to a source of electrical potential to produce a magnetic field, and wherein the detection device includes a voltmeter electrically coupled to the electromagnet.

30. (Original) The apparatus of claim 25 wherein the magnetic field source includes an electromagnet, couplable to a source of electrical potential to produce a

magnetic field, and wherein the detection device includes an ammeter electrically coupled to the electromagnet.

31. (Original) The apparatus of claim 25 wherein the magnetic field source includes a magnet positioned at least proximate to the support, the magnet being movable relative to the support as the microfeature workpiece rotates.

32. (Original) The apparatus of claim 25 wherein the magnetic field source includes a magnet positioned at least proximate to the support, the magnet being movable relative to the support as the microfeature workpiece rotates, and wherein the detection device includes a radiation detection device positioned to detect movement of the magnet.

33. (Original) The apparatus of claim 25 wherein the magnetic field source includes a magnet positioned at least proximate to the support, the magnet being movable relative to the support as the microfeature workpiece rotates, and wherein the magnet is supported by a non-rigid support coupled between the magnet and a generally fixed base.

34. (Original) The apparatus of claim 25 wherein the detection device includes a displacement measuring device coupled to a portion of the magnetic field source.

35. (Original) The apparatus of claim 25 wherein the detection device includes a force measuring device coupled to a portion of the magnetic field source.

36. (Original) The apparatus of claim 25, further comprising a feedback control device, coupled between the detection device and the support, the feedback control device configured to receive at least one input signal from the detection device and direct at least one control signal to the support to control a rotation speed of the microfeature workpiece.

37. (Original) The apparatus of claim 25, further comprising a feedback control device configured to receive at least one rotation speed change threshold value and configured to direct rotation of the microfeature workpiece to cease when the detection device detects a microfeature workpiece rotation speed change that exceeds the at least one rotation speed change threshold value.

38. (Original) The apparatus of claim 25, further comprising a feedback control device configured to receive at least one rotation speed change threshold value and configured to direct at least one adjustment to a rotation speed of the microfeature workpiece when the detection device detects a microfeature workpiece rotation speed change that exceeds the at least one rotation speed change threshold value.

39. (Currently Amended) An apparatus for detecting a rotational state of a microfeature workpiece having an electrically conductive material, the apparatus comprising:

a support having an engaging surface configured to carry and rotate a microfeature workpiece;

at least one rotating brush positioned to engage at least one face of the microfeature workpiece, the at least one brush being positioned to remove material from the at least one face of the microfeature workpiece;

a magnetic field source positioned at least proximate to the support, the magnetic field source being configured to produce a magnetic field at least proximate to the support so that the magnetic field produces an eddy current in a portion of the microfeature workpiece when the workpiece is rotated; and

a detection device positioned at least proximate to the support, the detection device being configured to detect a characteristic corresponding to a state of the magnetic field, the characteristic depending at least in part on relative motion, or lack of relative motion, between the conductive material of the microfeature workpiece and the magnetic field.

40. (Original) The apparatus of claim 39, further comprising:

a brush drive device configured to be operatively coupled to the at least one rotating brush; and

a feedback control device coupled between the detection device and the rotating brush drive device, the feedback control device being configured to receive at least one input signal from the detection device and direct at least one control signal to the rotating brush drive device to control a rotation speed of the microfeature workpiece.

41. (Original) The apparatus of claim 39, further comprising a feedback control device being configured to receive at least one rotation speed change threshold value and configured to direct the rotation of the microfeature workpiece to cease when the detection device detects a microfeature workpiece rotation speed change that exceeds the at least one rotation speed change threshold value.

42. (Original) The apparatus of claim 39, further comprising a feedback control device configured to receive at least one rotation speed change threshold value and configured to direct at least one adjustment to a rotation speed of the microfeature workpiece when the detection device detects a microfeature workpiece rotation speed change that exceeds the at least one rotation speed change threshold value.

43. (Original) The apparatus of claim 39, further comprising:

a feedback control device configured to receive at least one rotation speed change threshold value and configured to direct at least one adjustment to a rotation speed of the microfeature workpiece when the detection device detects a microfeature workpiece rotation speed change that exceeds the at least one rotation speed change threshold value, and wherein the feedback control device is configured to direct the rotation of the microfeature workpiece to cease when the detection device detects that the microfeature workpiece rotation speed still exceeds the at least one

rotation speed change threshold value after the at least one adjustment has been made.

44. (Currently Amended) An apparatus for detecting a rotational state of a microfeature workpiece having an electrically conductive material, the apparatus comprising:

support means for supporting and rotating a microfeature workpiece,

magnetic field means for producing a magnetic field at least proximate to the support so that an eddy current is produced in a portion of the microfeature workpiece when the workpiece is rotated; and

detection means for detecting a characteristic corresponding to a state of the magnetic field, the characteristic depending at least in part on relative motion, or lack of relative motion, between the conductive material of the microfeature workpiece and the magnetic field.

45. (Original) The apparatus of claim 44 wherein the magnetic field means is configured to apply an electrical potential to an electromagnet circuit.

46. (Original) The apparatus of claim 44 wherein the magnetic field means includes a permanent magnet positioned at least proximate to the microfeature workpiece.

47. (Currently Amended) The apparatus of claim 44 wherein the magnetic field means is configured to produce an ~~electro~~magnetic field by applying a constant electrical potential to an electromagnet circuit, and the detection means is configured to detect a change in an electrical characteristic of the electromagnet circuit.

48. (Original) The apparatus of claim 44 wherein the magnetic field means is configured to support a portion of a magnetic field source with a magnet support, the portion of the magnetic field source being movable relative to the microfeature

workpiece, and the detection means is configured to detect movement of the portion of the magnetic field source as the microfeature workpiece rotates.

49. (Original) The apparatus of claim 44 wherein the magnetic field means is configured to support a portion of a magnetic field source with a magnet support, and the detection means is configured to detect forces exerted on the portion of the magnetic field source as the microfeature workpiece rotates.

50. (Original) The apparatus of claim 44, further comprising a means for ceasing to rotate the microfeature workpiece when a change in a rotation speed of the microfeature workpiece exceeds a target value.

51. (Original) The apparatus of claim 44, further comprising a means for adjusting a rotation speed of the microfeature workpiece when a change in a rotation speed of the microfeature workpiece exceeds a target value.